

REMARKS

This response is intended as a full and complete response to the final Office Action mailed July 26, 2006. In the Office Action, the Examiner notes that claims 1-22, 24-46, 48 and 49 are pending of which claims 1-6, 14-22, 24-30, 38-46 and 48-49 are rejected and claims 7-13 and 31-37 are withdrawn. By this response, Applicant has amended claims 1, 14, 20, 22, 25, 29-30, 38 - 46, and 49.

In view of both the amendments presented above and the following discussion, Applicant submits that none of the claims now pending in the application are indefinite, directed to non-statutory subject matter, or obvious, under the respective provisions of 35 U.S.C. §§112, 101, 102, and 103. Thus, Applicant believes that all of the claims are now in allowable form.

It is to be understood that Applicant, by amending the claims, does not acquiesce to the Examiner's characterizations of the art of record or to Applicant's subject matter recited in the pending claims. Further, Applicant is not acquiescing to the Examiner's statements as to the applicability of the prior art of record to the pending claims by filing the instant response including amendments.

OBJECTIONS

Claim 20

The Examiner has objected to claim 20 because "claim 20 recites 'the initial TIO' and 'said initial TIO'." The Examiner "requests that applicant consistently use either 'said' or 'the' in referring to objects because inconsistently using 'said' and 'the' when referring to the same object seems to imply what are being referred to are different objects."

Applicant has herein amended claim 20 to replace "the initial TIO" with "said initial TIO" in order to maintain consistent use of the word "said" within the claim.

Therefore, Applicant respectfully requests that the Examiner's rejection be withdrawn.

REJECTIONS

35 U.S.C. §112

The Examiner has rejected claims 1-6, 24, 26-30, 39-45-46, and 48-49 under 35 U.S.C. §112, ¶2 as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

Claims 1, 46, 49:

With respect to claims 1, 46, and 49, the Examiner maintains his rejection. Specifically, the Examiner asserts that claims 1, 46, and 49 are unclear. Applicant respectfully traverses the rejection.

In the Office Action, the Examiner asserts that the "...applicant meant to recite the following: 'providing, as part of said TIO, a hash value of a trust entity certificate and associated trust information, indicating a level of trust for a trusted entity associated with said trust entity certificate.'" (Office Action, Pg. 7).

Applicant respectfully submits that the Examiner's suggestions for changes to claim 1, if accepted, would render claim 1 indefinite. In the Examiner's suggested format for claim 1, it is at least unclear as to whether the trust entity certificate and/or the associated trust information indicates the level of trust for a trusted entity associated with the trust entity certificate.

Although Applicant respectfully believes that claim 1 was definite as originally filed, in the interest of furthering the case, Applicant has herein amended the independent claims to clarify Applicant's invention. With respect to claim 1, for example, Applicant has amended claim 1 to recite "providing as part of said TIO: 1) a hash value of a trust entity certificate, and 2) associated trust information indicating a level of trust for a trusted entity associated with said trust entity certificate." In other words, as stated in Applicant's originally-filed specification, as stated by the Applicant in the previous response, and as recited in amended claim 1, the TIO includes (1) a hash value of a trust entity certificate and (2) associated trust information. The associated trust information indicates a level of trust for a trusted entity associated with the trust entity certificate.

Support for amended claim 1 may be found at least on Page 13 of Applicant's originally-filed specification. Table A on Page 13 of Applicant's specification depicts the structure of a TIO. As depicted in Table A, the TIO structure includes a hash function "Hash (C₁)" and a trust vector "TV₁" associated with hash function "Hash (C₁)". The hash function "Hash (C₁)" is a hash value of a trust entity certificate C₁. The trust vector "TV₁" is trust information which is associated with hash function "Hash (C₁)". The trust vector "TV₁" is trust information that indicates a level of trust for a trusted entity associated with trust entity certificate C₁. This is especially clear from Applicant's specification, which states that "[e]ach row of the table consists of the hash value of a trust entity certificate, such as Root CA certificate, and its associated trust information indicating the level of trust for this entity."

As such, Applicant respectfully submits that claim 1 is definite under 35 U.S.C. §112, ¶2. Furthermore, Applicant has herein amended independent claims 46 and 49 in a manner similar to the amendment of claim 1. Thus, for at least the same reasons as discussed herein with respect to claim 1, Applicant submits that claims 46 and 49 are also definite under 35 U.S.C. §112, ¶2.

Therefore, Applicant respectfully requests that the Examiner's rejection be withdrawn.

Claims 24, 26-30, and 39-45:

With respect to claims 24, 26-30, 39-45, the Examiner asserts that claims 24, 26-30, 39-45 do not further define the structure of the apparatus of the respective independent claims from which they depend. Applicant respectfully traverses the rejection.

In the Office Action (Pg. 5), the Examiner relies on Ex parte Masham, 2 USPQ2d 1647 (B.P.A.I 1987), and other cases, in concluding that Applicant's claims 24, 26-30, 39-45 fail to satisfy 35 U.S.C. §112, ¶2 because the claims do not further define the structure of the apparatus as claimed in the respective parent claims. Applicant respectfully disagrees.

The Examiner's reliance on Masham is misplaced. In Masham, the Board was concerned with a claimed apparatus having a recitation with respect to the

material intended to be worked upon by the apparatus. Masham, 2 USPQ2d at 1648. The Board stated that “a recitation with respect to the material intended to be worked upon by a claimed apparatus does not impose any structural limitations upon the claimed apparatus.” Id. (Emphasis added). However, the functional language recited in Applicant’s claim 1 does not recite a “material intended to be worked upon.” Rather, such functional language includes specific functional limitations for the claimed client. Notably, the client is configured to receive a trust information object (TIO) associated with the client where the TIO includes a hash value of a trust entity certificate and associated trust information indicating a level of trust for a trusted entity associated with said trust entity certificate. As such, Applicant submits that claims 24, 26-30, 39-45 35 meet the requirements of U.S.C. §112, ¶2.

Therefore, Applicant respectfully requests that the Examiner’s rejection be withdrawn.

35 U.S.C. §101

The Examiner has rejected claims 1-6, 14-22, 24-30, 38-46, and 48-49 under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter. Applicant respectfully traverses the rejection.

Claims 1 – 6:

The Examiner asserts that claim 1 is directed toward a method which lacks a concrete, useful, and tangible result, and, therefore, is non-statutory. Applicant respectfully disagrees.

MPEP 2106.IV.B.2(b)(ii) recites (emphasis added below):

“For such subject matter to be statutory, the claimed process must be limited to a practical application of the abstract idea or mathematical algorithm in the technological arts. See Alappat, 33 F.3d at 1543, 31 USPQ2d at 1556-57 (quoting Diamond v. Diehr, 450 U.S. at 192, 209 USPQ at 10). See also Alappat 33 F.3d at 1569, 31 USPQ2d at 1578-79 (Newman, J., concurring) (“unpatentability of the principle does not defeat patentability of its practical applications”) (citing O’Reilly v. Morse, 56 U.S. (15 How.) at 114-19). A claim is limited to a practical application when the method, as claimed, produces a concrete, tangible and useful result; i.e., the method recites a

step or act of producing something that is concrete, tangible and useful. See AT&T, 172 F.3d at 1358, 50 USPQ2d at 1452. Likewise, a machine claim is statutory when the machine, as claimed, produces a concrete, tangible and useful result (as in State Street, 149 F.3d at 1373, 47 USPQ2d at 1601) and/or when a specific machine is being claimed (as in Alappat, 33 F.3d at 1544, 31 USPQ2d at 1557 (*>en< banc). For example, a computer process that simply calculates a mathematical algorithm that models noise is nonstatutory. However, a claimed process for digitally filtering noise employing the mathematical algorithm is statutory.”

Thus, for subject matter to be statutory, the process must be limited to a practical application in the technological arts. Furthermore, a claim is limited to a practical application when the method produces a concrete, tangible and useful result.

Applicant’s claim 1 recites:

“1. A method for delivering information from a trust information provider to a client for verification of a received certificate by said client, comprising the steps of:
providing a trust information object (TIO) to said client, wherein said TIO comprises: 1) a hash value of a trust entity certificate, and 2) associated trust information indicating a level of trust for a trusted entity associated with said trust entity certificate, wherein the trusted entity comprises a certificate authority; and
verifying a received certificate using at least a portion of said TIO.”
[Emphasis added.]

Applicant’s claim 1 recites, inter alia, a method for delivering information from a trust information provider to a client for verification of a received certificate by the client. To deliver information to a client, where the information is used by the client to verify a received certificate, is a practical application. Similarly, verification of a received certificate is a practical application.

Furthermore, the result of the claim is concrete and tangible because the claim recites limitations of “providing a trust information object (TIO) to said client” and “verifying a received certificate using at least a portion of said TIO.”

More specifically, with respect to the first limitation, providing a TIO to a client is concrete and tangible because the information, including 1) a hash value of a trust

entity certificate and 2) associated trust information indicating a level of trust for a trusted entity associated with said trust entity certificate, will physically be received by the client as a result of the method. The result is useful because the client receives information which it may use to verify received certificates. One of ordinary skill in the art would understand this to be useful.

With respect to the second limitation, verifying a received certificate is concrete and tangible because the client receives a certificate and performs some processing, using at least a portion of the information received in the TIO, in order to verify the received certificate. The result is useful because the client is able to verify certificates for performing various functions, such as providing secure connections between the client and Web servers, and other functions described in Applicant's originally-filed specification. One of ordinary skill in the art would understand this to be useful.

Furthermore, in the Office Action, the Examiner asserts that "[a]s applicant has defined a TIO in the specification, a TIO is not necessarily a certificate, thus neither steps recited in claim 1 has accomplished the intended practical application." (Office Action, Pg. 3). Applicant respectfully disagrees.

In the interest of furthering the case, Applicant has herein amended the preamble of claim 1 to indicate that information is provided from the trust information provider to the client. Thus, the Applicant respectfully submits that the Examiner's point is moot.

Furthermore, the Examiner's conclusion that neither steps recited in claim 1 has accomplished the intended practical application is based on the Examiner's assertion that a TIO is not necessarily a certificate. Since the Examiner's assertion that a TIO is not necessarily a certificate has been rendered moot, Applicant respectfully submits that the Examiner's conclusion that neither steps recited in claim 1 has accomplished the intended practical application is incorrect.

Applicant's intended practical application is to provide information to a client which the client may use in order to verify certificates received by the client, as well as perform other actions as described both hereinabove and in Applicant's originally-filed specification. As described herein, Applicant's invention clearly accomplishes

the intended practical application in that a trust information object is provided to the client, and a certificate is verified using at least a portion of the trust information object. As such, the steps in claim 1 accomplish the intended practical application of providing a TIO and verifying a received certificate using at least a portion of the TIO.

Thus, Applicant respectfully submits that claim 1 provides a concrete, useful, and tangible result, and, further, that the steps of claim 1 have accomplished the intended practical application of Applicant's invention. Furthermore, claims 2 – 6 depend from claim 1. Accordingly, Applicant submits that claims 1 – 6 meet the requirements of 35 U.S.C. §101 and are patentable thereunder.

Therefore, Applicant respectfully requests that the Examiner's rejection be withdrawn.

Claims 14 – 20:

The Examiner asserts that claim 14 is directed toward a method which lacks a concrete, useful, and tangible result, and, therefore, is non-statutory. Applicant respectfully disagrees.

Applicant's claim 14 includes a limitation similar to limitations of Applicant's claim 1. Namely, Applicant's claim 14 includes the limitation of "embedding a trust information object (TIO) within said client, wherein said TIO comprises: 1) a hash value of a trust entity certificate, and 2) associated trust information indicating a level of trust for a trusted entity associated with said trust entity certificate." As such, for at least the reasons discussed above with respect to claim 1, Applicant respectfully submits that Applicant's claim 14 clearly provides a concrete, useful, and tangible result.

Furthermore, Applicant's claim 14 includes the additional limitations of "said client connecting to said server to determine whether a new TIO is available" and "said server sending a new TIO to said client if there is a more recent TIO." Applicant respectfully submits that a client connecting to a server to determine whether a new TIO is available, and the server sending a new TIO to the client if there is a more recent TIO, enables a client to determine whether a newer version of

a TIO is available, and to obtain the latest TIO if there is a more recent TIO available. This is clearly a concrete, useful, and tangible result.

As such, Applicant respectfully submits that claim 14 provides a concrete, useful, and tangible result. Furthermore, claims 15 – 20 depend from claim 14. Accordingly, Applicant submits that claims 15 – 20 meet the requirements of 35 U.S.C. §101 and are patentable thereunder.

Therefore, Applicant respectfully requests that the Examiner's rejection be withdrawn.

Claims 22, 24– 30, 38:

The Examiner has rejected claims 22, 24 – 30, and 38 under 35 U.S.C. §101 asserting that since a client can be implemented as software per se, and software by itself is not statutory, claims 22, 24 – 30, and 38 are non-statutory. Applicant respectfully disagrees.

Applicant respectfully submits that it is sufficiently clear from Applicant's originally filed specification and drawings that a client is not purely software and, as such, an apparatus comprising a client is statutory. Applicant's Figure 1 clearly depicts a trust information provider in communication with a client. Furthermore, Applicant's specification states that "[t]he presently preferred embodiment of the invention (see Fig. 1) comprises a scheme that allows Trust Information Providers (TIP) 10, e.g. cable operators, ISPs, and OEMs, to deliver certificates with associated trust information to clients 12 for verification of the received certificates." (Specification, Pg. 12, Lines 14-16). A trust information provider, such as, for example, a cable operator, ISP, or OEM, clearly provides a trust information object to a client comprising a combination of hardware and software. This is especially clear from additional portions of Applicant's specification, which state that [t]he scheme also allows the TIP to update the certificates and associated trust information sent to clients, and it operates in connection with both flash and non-flash based clients." (Specification, Pg. 12, Lines 16-18, Emphasis added).

Although Applicant respectfully believes that claims 22, 24 – 30, and 38 are currently statutory, in the interest of furthering the case, Applicant has herein

amended the independent claims 22, 25, and 38. First, Applicant has herein amended claims 22, 25, and 38 to replace “client” with “client device” in order to further clarify that the term “client” refers to a device and not simply software. Furthermore, Applicant has herein amended claims 22, 25, and 38 to indicate that the TIO is stored in a physical memory of the client device, further clarifying that the term “client device” refers to a device and not simply software.

As such, Applicant respectfully submits that claims 22, 25, and 38 are directed toward statutory subject-matter. Furthermore, claims 24 and 26 – 30 depend from claims 22 and 25. Accordingly, Applicant submits that claims 24 and 26 – 30 also meet the requirements of 35 U.S.C. §101 and are patentable thereunder.

Therefore, Applicant respectfully requests that the Examiner’s rejection be withdrawn.

Claims 46 and 48-49:

The Examiner asserts that claims 46 and 49 are directed toward methods which lack a concrete, useful, and tangible result, and, therefore, is non-statutory. Applicant respectfully disagrees.

Applicant’s claims 46 and 49 include limitations similar to limitations of Applicant’s claims 1 and 14. As such, for at least the reasons discussed above with respect to claims 1 and 14, Applicant respectfully submits that Applicant’s claims 46 and 49 clearly provide concrete, useful, and tangible results.

Accordingly, Applicant respectfully submits that claims 46 and 49 provide concrete, useful, and tangible results. Furthermore, claim 48 depends from claim 46. As such, Applicant submits that claim 46 also meets the requirements of 35 U.S.C. §101 and is patentable thereunder.

Therefore, Applicant respectfully requests that the Examiner’s rejection be withdrawn.

35 U.S.C. §102

The Examiner has rejected claims 22, 24-30, and 38-45 under 35 U.S.C. §102(a/e) as being anticipated by Samar (U.S. 6,304,974, hereinafter “Samar”). Applicant respectfully traverses the rejection.

In the Office Action, with respect to claim 22 (and, similarly, claims 25 and 38), the Examiner asserts that the phrase “for receiving a trust information object (TIO) associated with said client” indicates an intended use of the client but does not define the structure of the apparatus, and, therefore, does not have patentable weight. Similarly, in the Office Action, with respect to claim 22 (and, similarly, claims 25 and 38), the Examiner asserts that the phrase “said TIO comprising a hash value of a trust entity certificate and associated trust information indicating a level of trust for a trusted entity associated with said trust entity certificate” describes a material worked on by the client, rather than the structure of the apparatus, and thus does not have patentable weight.

In the Office Action, the Examiner relies on Ex parte Masham, 2 USPQ2d 1647 (B.P.A.I 1987), and other cases, in concluding that the Applicant’s limitations do not have patentable weight. The Examiner’s reliance on Masham to avoid attributing patentable weight to functional features is misplaced. In Masham, the Board was concerned with a claimed apparatus having a recitation with respect to the material intended to be worked upon by the apparatus. Masham, 2 USPQ2d at 1648. The Board stated that “a recitation with respect to the material intended to be worked upon by a claimed apparatus does not impose any structural limitations upon the claimed apparatus.” Id. (Emphasis added). However, the functional language recited in Applicant’s claim 1 does not recite a “material intended to be worked upon.” Rather, such functional language includes specific functional limitations for the claimed client. Notably, the client is configured to receive a trust information object (TIO) associated with the client where the TIO includes a hash value of a trust entity certificate and associated trust information indicating a level of trust for a trusted entity associated with said trust entity certificate.

Numerous CCPA and Federal Circuit decisions have specifically approved of the use of functional limitations in claims and have assigned such functional limitations patentable weight. See Irah H. Donner, Patent Prosecution Practice and

Procedure Before the U.S. Patent Office 726-732 (3d ed. 1999). Notably, the CCPA specifically held a functional limitation to have patentable weight. See In re Land, 151 USPQ 621, 635-36 (CCPA 1966). See also In re Ludtke, 169 USPQ 563, 566 (CCPA 1971) (stating that there is nothing prohibiting the use of functional language in a claim). The Federal Circuit has specifically held a claim to be non-obvious over the prior art based on a functional limitation, where the only difference between the claim and the prior art was the functional limitation. See In re Mills, 16 USPQ2d 1430, 1431-32 (Fed. Cir. 1990). Thus, the Examiner clearly erred in not attributing patentable weight to the functional features recited in Applicant's claim 22 (and similarly, claims 25 and 38).

Second, Samar fails to teach each and every element of Applicant's invention of claim 22. Namely, Samar does not teach or suggest at least the limitation of "a client device for receiving a trust information object (TIO) associated with said client, wherein said TIO comprises: 1) a hash value of a trust entity certificate, and 2) associated trust information indicating a level of trust for a trusted entity associated with said trust entity certificate, wherein said client device is adapted for verifying a received certificate using at least a portion of said TIO," as taught in Applicant's invention of at least claim 22.

Rather, Samar merely discloses a system for managing trusted certificates for authenticating communications for clients belonging to an enterprise. As taught in Samar, the system assembles a list of trusted certificates containing public keys for authenticating communications signed by associated private keys. The assembly process may include verifying the authenticity of trusted certificates. Samar, however, fails to teach or suggest a client for receiving a TIO including a hash value of a trust entity certificate and associated trust information. As such, since Samar fails to teach or suggest the associated trust information, Samar also fails to teach or suggest associated trust information indicating a level of trust for a trusted entity associated with the trust entity certificate.

"Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim." Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 221 USPQ

481, 485 (Fed. Cir. 1984) (emphasis added). Since Samar does not teach a client for receiving TIO associated with the client where the TIO comprises a hash value of a trust entity certificate and associated trust information indicating a level of trust for a trusted entity associated with the trust entity certificate, Samar does not teach each and every element of Applicant's invention recited in claim 22. Therefore, Applicant respectfully submits that the invention recited in claim 22 is not anticipated by Samar and, as such, fully satisfies the requirements of 35 U.S.C. §102.

As such, Applicant's independent claims 22, 25, and 38 are patentable over Samar under 35 U.S.C. §102. Furthermore, claims 24, 26-30, and 39-45 depend, directly or indirectly, from independent claims 22, 25, and 38, and recite additional limitations therefore. Accordingly, for at least the same reasons discussed with respect to claims 22, 25, and 38, claims 24, 26-30, and 39-45 are also non-anticipated and patentable over Samar under §102.

Therefore, Applicant respectfully requests that the Examiner's rejections under U.S.C. §102 be withdrawn.

35 U.S.C. §103

Claims 1-4, 6, 14-21, 46, and 48-49

The Examiner has rejected claims 1-4, 6, 14-21, 46, and 48-49 under 35 U.S.C. §103(a) as being unpatentable over Samar (U.S. 6,304,974, hereinafter "Samar") in view of Vogel et al. (U.S. 6,816,900, hereinafter "Vogel") and further in view of Fischer (U.S. 4,868,877, hereinafter "Fischer"). Applicant respectfully traverses the rejection.

Independent claim 1 recites features of Applicant's invention that Applicant considers to be inventive. In particular, independent claim 1 recites:

A method for delivering certificates with associated trust information from a trust information provider to a client for verification of a received certificate by said client, comprising the steps of:
providing a trust information object (TIO) to said client; and
providing as part of said TIO: 1) a hash value of a trust entity certificate, and 2) associated trust information indicating a level of trust for a trusted entity associated with said trust entity certificate;
verifying a received certificate using at least a portion of said TIO.
[Emphasis added.]

For at least the reasons discussed hereinabove with respect to Applicant's claim 22, Samar fails to teach or suggest Applicant's limitation of "providing as part of said TIO: 1) a hash value of a trust entity certificate, and 2) associated trust information indicating a level of trust for a trusted entity associated with said trust entity certificate." Furthermore, in the Office Action, the Examiner specifically admits that Samar fails to specifically disclose providing as part of a TIO a hash value of a trust entity certificate and associated trust information indicating a level of trust for a trusted entity associated with said trust entity certificate, as taught in Applicant's claim 1.

Furthermore, Vogel and Fischer, alone or in any permissible combination, fail to bridge the substantial gap between Samar and Applicant's invention.

In general, Vogel discloses a process for updating root certificates in a root certificate store of a client computer, maintaining the integrity of the existing root certificates and any new root certificates. As taught in Vogel, a cryptographically signed message including a certificate trust list, as well as any new root certificates to be added to the root certificate store, is accessed by an update root control to update the root certificates in the root certificate store. (Vogel, Abstract).

Vogel, however, is devoid of any teaching or suggestion of associated trust information indicating a level of trust for a trusted entity associated with said trust entity certificate, as taught in Applicant's invention of claim 1. As such, Vogel must also fail to teach or suggest that the trust entity comprises a certificate authority, as taught in Applicant's claim 1. Furthermore, Fischer fails to bridge the substantial gap as between Samar and Vogel and Applicant's invention.

In general, Fischer teaches a public key cryptographic system with enhanced digital signature certification which authenticates the identity of the public key holder. In particular, Fischer is directed towards exchanging of encryption keys between users during secure transactions such as e-commerce transactions. As taught in Fischer, a hierarchy of nested certifications and signatures is employed which indicates the authority and responsibility levels of the individual whose signature is being certified. Fischer teaches that a certifier creates a certificate which includes a trust level. The trust level in the created certificate is associated with the individual to

which the certificate is sent. From the teachings of Fischer, it is clear that an individual is a user. For example, Fischer uses an example in which a General Motors supervisor transmits a secure purchase order to a terminal user at a software distribution company. As such, Fischer merely teaches construction of a certificate having a trust level associated with a user who will use the certificate for exchanging secure transactions.

Fischer specifically teaches that “[t]he present invention addresses such problems with the public key or signature cryptographic system relating to authenticating the identity of the public key holder by expanding the capability of digital signature certification. In this regard, a certification methodology is utilized which employs multiple level certification while at the same time indicating the authority and responsibility levels of the individual whose signature is being certified as is explained in detail below.” (Fischer, Col. 4, Lines 1 – 9, Emphasis added). In other words, the trust level taught in Fischer is merely associated with an individual user for use during secure communication between the individual user and other individual users.

By contrast, Applicant’s invention of claim 1 teaches that trust information indicates a level of trust for a trusted entity associated with a trust entity certificate, where the trust entity comprises a certificate authority. In other words, the level of trust taught in Applicant’s invention of claim 1 is associated with a trusted entity that issues the associated certificate, not with a user which uses the trust entity certificate. As such, a trust level associated with a user for use in performing secure transactions with other users, as taught in Fischer, is not a level of trust for a certificate authority, as taught in Applicant’s invention of claim 1. Furthermore, Fischer is devoid of any teaching or suggestion of a trust level associated with a certificate authority. As such, Fischer, alone or in combination with Samar and Vogel, fails to teach or suggest Applicant’s invention, as a whole.

The test under 35 U.S.C. §103 is not whether an improvement or a use set forth in a patent would have been obvious or non-obvious; rather the test is whether the claimed invention, considered as a whole, would have been obvious. Jones v. Hardy, 110 USPQ 1021, 1024 (Fed. Cir. 1984) (emphasis added). Moreover, the

invention as a whole is not restricted to the specific subject matter claimed, but also embraces its properties and the problem it solves. In re Wright, 6 USPQ 2d 1959, 1961 (Fed. Cir. 1988) (emphasis added). Samar, Vogel, and Fischer, alone or in any permissible combination, fail to teach or suggest Applicant's invention as a whole.

As such, Applicant's independent claim 1 is patentable under 35 U.S.C. §103(a) over Samar in view of Vogel and further in view of Fischer. Independent claims 46 and 49 recite similar relevant limitations and, therefore, for at least the same reasons as discussed above with respect to independent claim 1, these independent claims are also non-obvious and patentable under 35 U.S.C. §103 over Samar, Vogel and Fischer. Furthermore, claims 2-4, 6, 14-21, and 48 depend, directly or indirectly from independent claims 1 and 46 while adding additional elements. Accordingly, claims 2-4, 6, 14-21 and 48 are also non-obvious and patentable over Samar, Vogel and Fischer under §103 for at least the same reasons that claims 1, 46 and 49 are patentable over Samar, Vogel and Fischer under §103. As such, Applicant respectfully requests that the Examiner's rejection of claims 1-4, 6, 14-21, 46, and 48-49 under U.S.C. §103(a) be withdrawn.

Claim 5

The Examiner has rejected claim 5 under 35 U.S.C. §103(a) as being unpatentable over Samar in view of Vogel and Fischer and further in view of applicant's admittance of prior art. Applicant respectfully traverses the rejection.

Claim 5 depends directly from independent claim 1. Moreover, for at least the reasons discussed above, the Samar, Vogel and Fischer references fail to teach or suggest Applicant's invention as recited in claim 1. Accordingly, any attempted combination of the Samar, Vogel and Fischer references with any other additional references, in a rejection against the dependent claims, would still result in a gap in the combined teachings in regards to the independent claim. As such, Applicant submits that dependent claim 5 is not obvious and is patentable under 35 U.S.C. §103.

Therefore, Applicant respectfully requests that the Examiner's rejection be withdrawn.

CONCLUSION

Thus, Applicant submits that all of the claims presently in the application are allowable. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Michael Bentley or Eamon J. Wall at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

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